Date: Sun, 3 Jul 94 11:35:19 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V94 #737

To: Info-Hams

Info-Hams Digest Sun, 3 Jul 94 Volume 94 : Issue 737

Today's Topics:

(none)

Call-Sign Prefixes

CW - THE ONLY MODE! (2 msgs)

Daily Summary of Solar Geophysical Activity for 02 July

Does anyone have a 73 or Good serial #'s for 940/930 ? Haiti's blockade frequencies?

Periodic Announcement - ARRL Email Information Server (info@arrl.org)
ZIA NET FREQ's

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 3 Jul 94 14:53:01 GMT From: news-mail-gateway@ucsd.edu

Subject: (none)

To: info-hams@ucsd.edu

R. Wade Schuette recently asked:

>>Does anyone have any info on morse sending systems designed for >>persons with motion disabilities such as cerebral palsy?

To which I retort:

I may be able to assist, Wade, as I've had a fair amount of experience with CP patients and adaptive/assistive gadgetry, particularly as it

relates to getting them firmly entrenched into the wide variety of pleasant and useful aspects of the Amateur Radio Service.

There's a LOT of good news to be had. Especially since the all-important computer is readily (some say TOO) available at ridiculously low (often free) prices, AND since the adaptive circuit boards are also readily available and can be funded by a large number of local organizations if necessary.

I've recently set up computers for eight CP (and one MS) patients here in the Hartford area. All at no charge whatsoever.

Oh, and two paragraphs ago, I failed to mention the availability of shareware/freeware software that makes the task that much more enjoyable. For example, one program I FREQUENTLY utilize is particularly well adapted for CP patients and others who have motor skills difficulty. Often they have trouble getting to a particular key without first mashing twenty others on the way to that single tiny place on the keyboard. Fair enough; there's certainly plenty of programs that will wait until a particular key is pressed for a specified period of time until it "takes". Fixes THAT nicely!

Oh, and the very same program allows Control, Alt, and Shift keys to be toggled without being held. Nifty and VERY much in demand!

And the Covox boards I've been setting up allow people to use any type of sounds or utterances to do the input tasks. One lady I work closely with lately has poor control over her hands, and her speech is difficult for us mere mortals to understand. But the computer? Once trained to her speech patterns, it merrily responds quite nicely to her voice commands. And on those frequent occasions when she's not up to answering the doorbell, the sound board recognizes that doorbell and outputs a very loud Doberman sound-alike file. The possibilities are, of course limitless. At some point let's absolutely discuss the ultra-cheap X10 devices and how voice commands can key THEM to kick in just about anything that uses electricity...

Which gets us to Amateur Radio, finally. With the above hardware and software, any number of exceptionally simple Amateur Radio applications suddenly become available to the disabled/handicapped person. I'm reminded of last year's Handi-hams camp, where I was teaching a class on just this sort of thing, and in wheeled an old-time amateur who had either CP or MS (I forget). I spotted him out of the corner of my eye as he was coming in, and made a mental note to myself that I'd not seen him before, although I'd been teaching there for almost a week at that point. Turns out he'd heard on a local repeater in North Dakota,

(the camp was in Minnesota) that someone might have info to assist him with using his computer to once again become active on the air. He particularly wanted to get back into CW operation. No problem! About ten minutes after his arrival, I had his head buzzing with simple methods of doing just that; he was delighted.

I was delighted as well, because the class was actually about using voice commands to enjoy AX.25 and TCP/IP operations, and this was an interesting and instructive way for me to point out to the other students that virtually ANY of the many modes of Amateur Radio operation can be enhanced and further enjoyed by use of inexpensive technology that already exists.

I'd be interested in continuing this discussion here, as I believe there are others who could benefit but are reluctant to join in and ASK. Also, there's the matter of such discussions spurring on the Elmers-of-the-disabled of which there are many, fortunately.

Luck Hurder, KY1T KY1TLUCK@AOL.COM ARRL@BIX.COM
53 Broadview St. "The Amateur Radio Service opens doors
Newington CT 06111 to the world for EVERYONE!"

Date: Sun, 03 Jul 94 16:15:45 GMT

From: spcuna!starcomm.overleaf.com!n2ayj!n2ayj@uunet.uu.net

Subject: Call-Sign Prefixes

To: info-hams@ucsd.edu

In article <48038@mindlink.bc.ca> Graham_Butler@mindlink.bc.ca writes:
>

> I am going to be travelling through the U.S. this summer, and I >already posted a message asking whether my Canadian Amateur license is good >in the U.S. as well, to which the answer was Yes. Apparently I have to >identify myself with my callsign followed by the prefix followed by "\ <and >then the prefix of the area that I'm in" How do I know what the prefix >should be? The ARRL handbook just says that the U.S. callsign prefixes are >between "WAA-WZZ"!

```
> Graham
```

USA also "owns" NAA-NZZ, KAA-KZZ, and AAA-ALZ (I think; check the A's).

The "can't go wrong" id would be "Wn/YOURCALL", where "n" is the call area in which you are operating (e.g., W2-STROKE-VE1ABC) The prefix of the country in which you are operating goes first; US switched to this world-wide standard some years ago. "W" is the most recognized US identifier.

I suggest you get an updated copy of both sets of rules to cover yourself.

- -

"Be sure your seat belt is securely fastened, keep your hands and feet inside the car at all times, secure any loose items, exit to your right, and enjoy your stay here at fill-in-the-blank." - Amusement Park speech #14a ***Stan Olochwoszcz, N2AYJ n2ayj@n2ayj.overleaf.com***

Date: 3 Jul 94 11:27:25 -0500

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!ulowell!

woods.uml.edu!martinja@network.ucsd.edu

Subject: CW - THE ONLY MODE!

To: info-hams@ucsd.edu

In article <CsALB5.G2n@srgenprp.sr.hp.com>, alanb@hpnmarb.sr.hp.com (Alan Bloom) writes:

> Doug Faunt N6TQS 510-655-8604 (faunt@netcom4.netcom.com) wrote:

>

- > : I've been considering trying to learn to use a paddle left-handed, so
- > : that I can keep a pencil in my right. Any opinions on this?
- > : I haven't learned to use a paddle yet. I'm still working on copying
- > : 13wpm.

>

- > I am a right-hander who learned on a left-handed bug. (!) To this day,
- > I can send with bug or keyer with either hand.

>

- > But it's not as useful as you might think. I find it very hard to
- > write and send at the same time, to the extent that I rarely even try.
- > (No problem writing and receiving at the same time.)

I think Luck Hurder, KY1T, is on to something in his post in the policy newsgroup where he speaks of the pencil and paper trap.

Probably 80 percent of the time I am copying code I have a pencil in hand and am either taking notes or writing verbatum. However, when I run mobile cw I have to depend completely on the gray matter entrapped within my skull. Yeah, it's still there, had an MRI in '90 that proves it.

Wonder what others think here...wouldn't it be best to learn code by head copy and not paper & pencil copy? I know Luck alluded to using a computer and your favorite word processor, but then you would have to know how to type also. The COVOX idea seems sound enough though. But looking back, I wish I had been taught to copy without the aid of any external memory storage devices, other than for maybe jotting down notes for the sake of QSO continuity or something

like that. Those of us who learned code the "old fashioned way" pencil & paper took a lot of hits when we'd miss a character. Later we learned how to just press on past those missed characters. I wonder how much less time would have been involved in getting the speed up to say 25 wpm or so if we had not gone that route?

It doesn't help that at test sessions we hand out paper and pencil and kinda force folks to copy that way. If they fail to attain a 70 percentile in answering the questions they may obtain credit for one minute of consecutive copy. What an incentive to copy with paper & pencil....and to copy verbatum.

Let's here from some of the cw experts out there. What are your ideas on this? You too Luck. I'm interested. Maybe we can compile some how to's to help those in the next code class. I'm quite familiar with the way *I* did it but would like input into how other did or would do it now.

Thanks a bunch, sincerely,

Jim, WK1V

Date: Sun, 3 Jul 1994 16:13:05 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!netcom6!

faunt@network.ucsd.edu

Subject: CW - THE ONLY MODE!

To: info-hams@ucsd.edu

I'd love to be able to do head copy, since the writing takes a significant amount of energy and time, however, I can't get the sense of what's coming across. I can't get the sense of letters spelled out to me, either. I have to remember them and mentally picture them. So, head copying, although I can get the characters a little faster that way, even now, doesn't seem to work for me. I am visually oriented.

Also, while copying on a computer or typewriter could be faster and/or easier, I don't type very well either. I have to look at the keyboard, at least some. Maybe I should learn to touch-type, but my goal is learning CW.

BTW, does anyone have any hints on learning to "copy behind"? 73, doug

Date: Sat, 2 Jul 1994 21:54:09 MDT

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!

newsxfer.itd.umich.edu!nntp.cs.ubc.ca!unixg.ubc.ca!quartz.ucs.ualberta.ca!alberta!
ve6mgs!usenet@network.ucsd.edu

Subject: Daily Summary of Solar Geophysical Activity for 02 July

To: info-hams@ucsd.edu

DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

02 JULY, 1994

(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 02 JULY, 1994

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 183, 07/02/94 10.7 FLUX=082.8 90-AVG=079 SSN=068 BKI=3555 2334 BAI=027 FLU1=2.9E+06 FLU10=1.5E+04 PKI=3555 3334 PAI=027 BGND-XRAY=A5.0 BOU-DEV=025,088,077,071,019,025,023,054 DEV-AVG=047 NT SWF=00:000 PCA-MAX= +0.1DB @ 1550UT PCA-MIN= -0.5DB @ 0510UT PCA-AVG= -0.0DB BOUTF-MAX=55336NT @ 2333UT BOUTF-MIN=55272NT @ 1005UT BOUTF-AVG=55301NT GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+075,+000,+000 GOES6-MAX=P:+133NT@ 1936UT GOES6-MIN=N:-060NT@ 0402UT G6-AVG=+102,+040,-030 FLUXFCST=STD:084,084,084;SESC:084,084,084 BAI/PAI-FCST=020,015,010/020,015,015 KFCST=3454 3232 3432 3323 27DAY-AP=017,019 27DAY-KP=3443 3334 4334 3344 WARNINGS= ALERTS=

!!END-DATA!!

NOTE: The Effective Sunspot Number for 01 JUL 94 was 25.7.

The Full Kp Indices for 01 JUL 94 are: 4- 40 5- 40 3- 3- 30 40

The 3-Hr Ap Indices for 01 JUL 94 are: 21 28 37 28 11 13 15 30

Greater than 2 MeV Electron Fluence for 02 JUL is: 2.8E+08

SYNOPSIS OF ACTIVITY

Solar activity was very low. Region 7742 (S09E03) stabilized and decayed slightly while producing only B-class enhancements. A small region emerged near N09E15 and was numbered as Region 7745. A moderate size H spot rotated around

the limb and was numbered as new Region 7746 (N11E76). Minor surging accompanied the limb transit of this region.

Solar activity forecast: solar activity should be at a very low to low level for the next three days. The possibility of another M-class flare from Region 7742 remains but at a lower level.

The geomagnetic field was at generally unsettled to minor storm conditions. Some high latitude sites experienced major storming near the 0900-1200Z interval. The greater than 2 MeV electron fluxes were at low to moderate levels.

Geophysical activity forecast: the geomagnetic field should continue active for 03 Jul with minor storm intervals possible that day. Mostly unsettled conditions are forecast for 04 Jul with active intervals possible as this coronal hole related disturbance finally subsides. The field should be mostly unsettled on 05 Jul.

Event probabilities 03 jul-05 jul

Class M 10/10/10 Class X 01/01/01 Proton 01/01/01 PCAF Green

Geomagnetic activity probabilities 03 jul-05 jul

A. Middle Latitudes
Active 40/30/25
Minor Storm 20/15/10
Major-Severe Storm 05/01/01

B. High Latitudes

Active 40/30/30 Minor Storm 25/20/15 Major-Severe Storm 10/05/05

HF propagation conditions were near-normal over the low and middle latitudes, while high and polar latitude paths saw near-normal propagation during the day and below-normal conditions at night. Transauroral circuits were most heavily affected with fair to poor propagation. Similar, although gradually improving conditions are expected over the next 72 hours. The frequency of high-latitude signal degradation should gradually subside as the level of geomagnetic and auroral activity correspondingly subsides.

COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 02/2400Z JULY

NMBR LOCATION LO AREA Z LL NN MAG TYPE

7742 S09E02 230 0200 DAC 07 023 BETA

7743 S11E13 219 0000 AXX 00 001 ALPHA

7745 N09E14 218 0010 CRO 03 003 BETA

7746 N11E75 157 0110 HSX 02 001 ALPHA

REGIONS DUE TO RETURN 03 JULY TO 05 JULY

NMBR LAT LO

7730 S11 130

7731 N09 123

LISTING OF SOLAR ENERGETIC EVENTS FOR 02 JULY, 1994

BEGIN MAX END RGN LOC XRAY OP 245MHZ 10CM SWEEP

 0152
 0152
 0152
 110

 0201
 0201
 0202
 110

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 02 JULY, 1994

NO EVENTS OBSERVED

INFERRED CORONAL HOLES: LOCATIONS VALID AT 02/2400Z

ISOLATED HOLES AND POLAR EXTENSIONS

EAST SOUTH WEST NORTH CAR TYPE POL AREA OBSN

NO DATA AVAILABLE FOR ANALYSIS

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date	Begin	Max	End	Xray	Op Region	Locn	2695 MHz	8800 MHz	15.4 GHz
01 Jul:	0626	0630	0634	B1.2					
	0757	0802	0806	B2.5					

0848 0918 0925 B2.1 1011 1022 1026 B1.7

1154 1158 1201 B1.2

1620 1724 1754 B7.0

1947 1950 1952 B2.6 2053 2103 2110 B2.7

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

C M X S 1 2 3 4 Total (%) -- -- ---- -- -- -- -- ---Uncorrellated: 0 0 0 0 0 0 0 000 (100.0)

Total Events: 008 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

Date Begin Max End Xray Op Region Locn Sweeps/Optical Observations 01 Jul: 0848 0918 0925 B2.1 III

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

= Type II Sweep Frequency Event II

III = Type III Sweep = Type IV Sweep
= Type V Sweep IV

Continuum = Continuum Radio Event Loop = Loop Prominence System,

Spray = Limb Spray,
Surge = Bright Limb Surge,
EPL = Eruptive Prominence on the Limb.

** End of Daily Report **

Date: Wed, 29 Jun 1994 23:41:00 GMT

From: ihnp4.ucsd.edu!agate!iat.holonet.net!brranch!

geoffrey.s..mendelson@network.ucsd.edu
Subject: Does anyone have a 73 or
To: info-hams@ucsd.edu
From: gsm@gsm001.mendelson.com (Geoffrey S. Mendelson)
Newsgroups: rec.radio.amateur.misc
Subject: Does anyone have a 73 or so callbook?

Dota: Wed 20 Jun 1004 16:41:20 CMT

Date: Wed, 29 Jun 1994 16:41:30 GMT

Message-ID: <1994Jun29.164130.20830@gsm001.mendelson.com>

Organization: mendelson.com

I am looking for someone to look up a call in the 1973 or so callbook. If you have one and would not mind looking up a call for me, please email me. Thanks and 73,

Geoff.

- -

"I am number six. Others come and others go, but I am always number six." (From the movie "Eminent Domain".)

Geoffrey S. Mendelson N3OWJ (215) 242-8712 gsm@mendelson.com

≥ TriNet: Bufkin Ridge Ranch * Where Horsemen can talk * 812-838-9053

Date: 3 Jul 1994 11:10:58 -0400

From: ihnp4.ucsd.edu!swrinde!gatech!udel!news.udel.edu!chopin.udel.edu!not-for-

mail@network.ucsd.edu

Subject: Good serial #'s for 940/930 ?

To: info-hams@ucsd.edu

What are the ranges of preferable serial numbers for the TS 930 and 940 ?

Tnx Bob

- -

Bob Penneys, WN3K Frankford Radio Club N.E.R.D.S.

Internet: penneys@brahms.udel.edu Mail: 12 E. Mill Stn. Dr., Newark, DE 19711 Work: Ham Radio Outlet (DE) 800-644-4476, 9:30-5:30 Eastern Fax: 302-322-8808

Date: Sun, 03 Jul 1994 12:05:48 -0500

From: newsflash.concordia.ca!altitude!interso.hip.cam.org!user@uunet.uu.net

Subject: Haiti's blockade frequencies?

To: info-hams@ucsd.edu

Thanks for you information Robin

STEF

Date: Sat, 2 Jul 1994 21:00:04 MDT

From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com! newsxfer.itd.umich.edu!nntp.cs.ubc.ca!alberta!ve6mgs!rec-radio-

info@network.ucsd.edu

Subject: Periodic Announcement - ARRL Email Information Server (info@arrl.org)

To: info-hams@ucsd.edu

Periodic Announcement - ARRL Email Information Server (info@arrl.org)

The services that the ARRL provides via the internet include the Email Information Server and the Technical Information Service. The Information Server is an automated mail server that gives you access to many of information files relating to various facets of Amateur Radio. You can retrieve any or all of these files by sending an email message to info@arrl.org here at ARRL HQ. Each file you request is then mailed to you automatically.

To use it, mail messages to:

info@arrl.org

Each line of the message body should contain a command as shown below. The subject of your message is not processed and may be omitted. You may place as many commands in a message as you want. The files you request will be sent to you in separate messages. Only ASCII text files are supported.

Valid INFO commands:

reply <address> (may be needed - see below for explanation)
help
index
send FILENAME (example: send prospect.txt)
quit

In the above message example, "help" retrieves a brief set of instructions for info, "index" retrieves a list of available files and "send prospect.txt" retrieves a text file containing information on becoming a radio amateur.

Note to users with FTP capability: All of these files are also available by anonymous ftp to oak.oakland.edu in the pub/hamradio/arrl/infoserver area. Retrieve the file index.txt in the /league sub-directory for a complete listing of available files.

If you want to retrieve several text files with one message, use a separate line for each "send filename" request.

Your From: field or Reply-to: field in your header should contain a valid Internet address, including full domain name. If your From: field does not contain a valid Internet address, the answer will not reach you. If this is the case, then use the reply command as shown above. When needed, this command should always be the first command in your message.

IMPORTANT: Please use the quit command in your message. This will prevent processing errors from message signatures.

PLEASE NOTE!: This is an automated system not capable of handling written requests. Any questions on the info-server or the content of any of its files should be directed to mtracy@arrl.org.

ALSO NOTE!: Do *NOT* reply to messages sent from info@arrl.org - the reply address is redirected to keep bounced messages from endlessly looping. Write a new message to info@arrl.org instead.

The Technical Information Service gives League members on the internet better access to the knowledgeable technical staff here at ARRL HQ. Questions relating to Amateur Radio and related technical topics are welcome. To use this service, send a normal e-mail message to tis@arrl.org with your question spelled out in plain english. For best service, be as specific as possible and keep your line length in messages to a maximum of 80 characters. Due to personnel limitations, priority will be given to questions from League members.

Best Regards,

Michael Tracy, KC1SX, ARRL Technical Information Services Coordinator (e-mail mtracy@arrl.org)

Sample of files available from INFO: (There are lots more!)

Note - If you are not yet an Amateur Radio operator retrieve the file prospect (send prospect) for information on how to easily get started in this fun hobby.

```
FILENAME SIZE DESCRIPTION
 -----
PROSPECT.TXT
                 2k How to get your Amateur Radio license
EXAMS.TXT
                 52k Current exam schedule info - updated bi-weekly
EXAMINFO.TXT
                9k Examinations - what to bring - requirements
                 6k List of HQ Email addresses
USERS.TXT
ARRLCAT.TXT
                 39k Catalog of ARRL Publications - commercial content
JOIN.TXT
                  2k How become an ARRL member
SERVICES.TXT
                 5k A condensed list of ARRL membership services
                 28k An electronic tour of ARRL Headquarters
TOUR.TXT
DIR.HO
                  5k Visiting ARRL HQ - directions and tour information
                  7k Breakdown of users of HF spectrum
HFBANDS
0-SIGS
                  1k ARRL list of Amateur Radio O-signals
                  2k W1AW schedule of transmissions and operation
W1AW.SKD
                 12k Which rig is best? Part 1 - QST Lab Notes
PRODREV1.TXT
                 22k Which rig is best? Part 2 - QST Lab Notes
PRODREV2.TXT
                 6k QST Bibliographies List
!LIST.TXT
                 37k How to solve an EMI/RFI problem - QST Lab Notes
RFIGEN.TXT
                 13k Where to buy filters - EMI-proof telephones etc.
RFISOURC.TXT
ADDRESS.TXT
                 16k Lots and lots of ham/electronic company addresses
                 6k List of companies that sell kits
KITS.TXT
BBS.TXT
                 12k List of ham-radio land-line bulletin boards
                 25k Introduction to the FAQ and Amateur Radio
FAQ1.TXT
FAQ2.TXT
                 45k Amateur Radio Orgs, Services and Info Sources
FA03.TXT
                 32k Amateur Radio Advanced and Technical Questions
American Radio Relay League, Inc.
                                   Tel: 1-203-666-1541
225 Main Street
                                   Fax: 1-203-665-7531
Newington, CT 06111
                                  Email: mtracy@arrl.org
```

Date: 3 Jul 94 11:35:34 -0500

From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!ulowell!woods.uml.edu!

martinja@network.ucsd.edu Subject: ZIA NET FREQ's To: info-hams@ucsd.edu

In article <1994Jul2.183857.25279@rgfn.epcc.edu>, ab728@rgfn.epcc.edu (Bill Lindberg) writes:

> Robert E. O'Connell (oconnell@leviathan.tamu.edu) wrote:
> : Would someone please post or send me a list of the freq's from West Texas
> : to Tucson, Pheonix and points north.

>

> All i know is the one in Albuquerque, it's 145.29, -.6 with a 100 Htz tone
> (I think). I would also like to see a list posted If anyone would care to
> do it. I know there's maps available, but have never seen an online list.
>
> 73, Bill, KC5FKN

Although I am living in Massachusetts right now (and wishing I could hit the ZIA from here...hi hi) I lived in Alamogordo, NM for three years and left a year ago. Retired from the Air Force don't ya know....:)

Anyhoo, El Paso's entrance into the link was on 145.33. No tone required.

Date: (null)
From: (null)
Jim - WK1V

End of Info-Hams Digest V94 #737 ************